

Clinical Laboratory Update

July 2021

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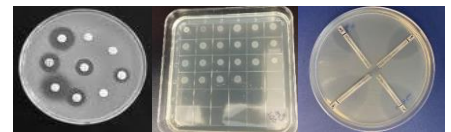
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From the desk of the Public Health Laboratory Director

MHD Laboratory continues to maintain and expand SURRG efforts

MHDL in collaboration with the Wisconsin Division of Public Health (DPH) was recently awarded CDC Epidemiology and Laboratory Capacity (ELC) funding for its Strengthening the United States Response to Resistant Gonorrhea (SURRG) program efforts for the sixth consecutive year. Since 2016, as one of eight SURRG sites nationwide, MHDL and WI DPH have aimed their efforts toward combating antibiotic-resistant gonorrhea by adopting strategies including enhanced surveillance, use of antimicrobial susceptibility testing (AST) tools, such as Etest, and guided use of appropriate treatment options and prevention strategies, for example. These measures have helped improve detection and treatment of gonorrhea including investigation of disseminated gonococcal infections (DGI) cases in Milwaukee and throughout the state of Wisconsin.



As MHDL and fellow SURRG partners look toward **SURRG 2.0** priorities in the year ahead, activities will include further enhancing laboratory capacity, expanding surveillance, improving LIMS system reporting, and piloting genomic surveillance activities, including use of CIDs and extraction platforms to help better detect and prevent outbreaks. MHDL also aims to tackle several SURRG-related quality improvement initiatives, including validating patient-collected specimens in the clinic as well as in non-clinical or home settings, as part of a validation study with NACCHO and the CDC. More information on SURRG efforts in Wisconsin is available in several publications and presentations on the [Lab Publications](#) section of MHDL's website.

Sexually Transmitted Infections

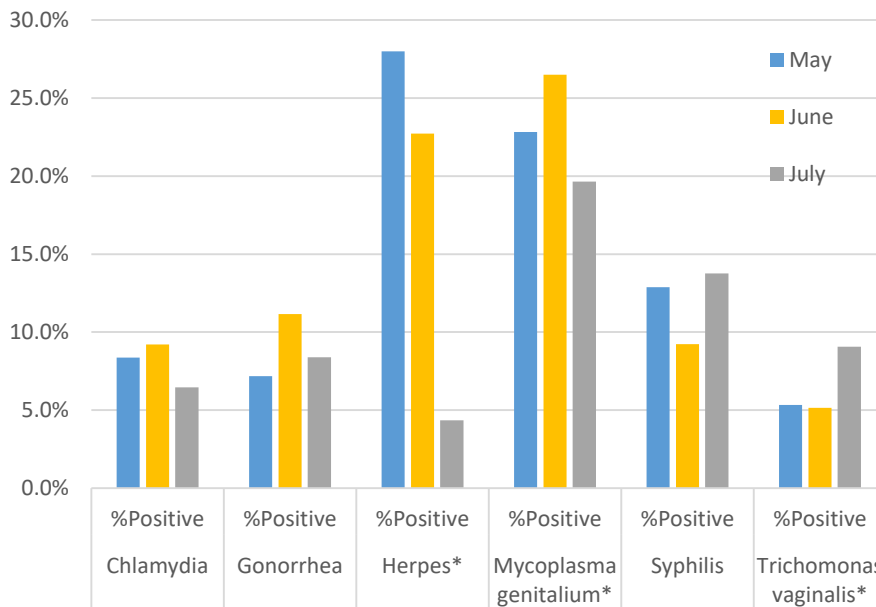


Figure 1: Percent positivity for specimens screened using molecular or serological assays for the given organism.

*Not reportable as per WI DHS 145.04 (3) (a)

Respiratory Infections

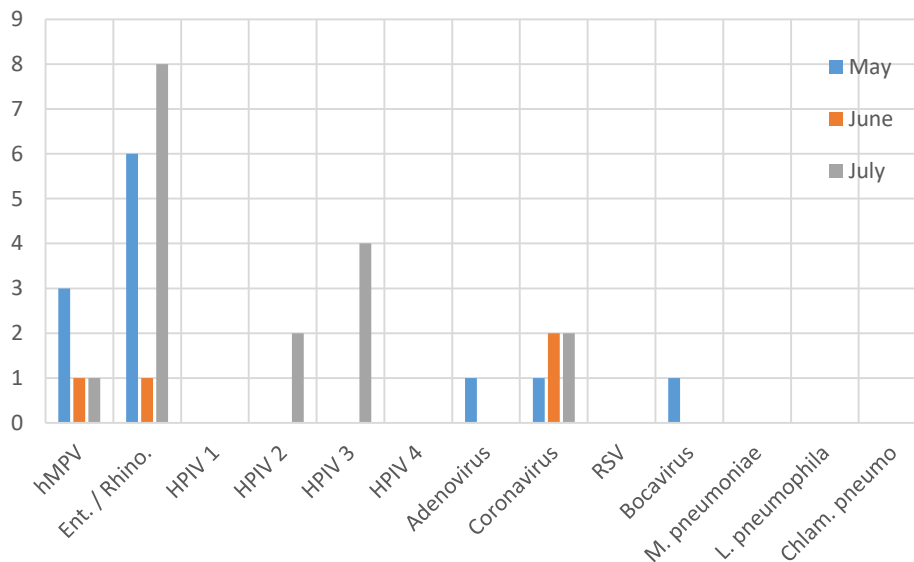


Figure 2: Respiratory pathogens detected using a Respiratory Pathogen Panel (RPP) and/or RT-PCR Influenza assay.

Connect with your health department:



Links to related information & data:

[MHDL COVID-19 Testing website](#)

[MHD COVID-19 Situation](#)

[WSLH Laboratory Surveillance Report](#)

New HIV Infections

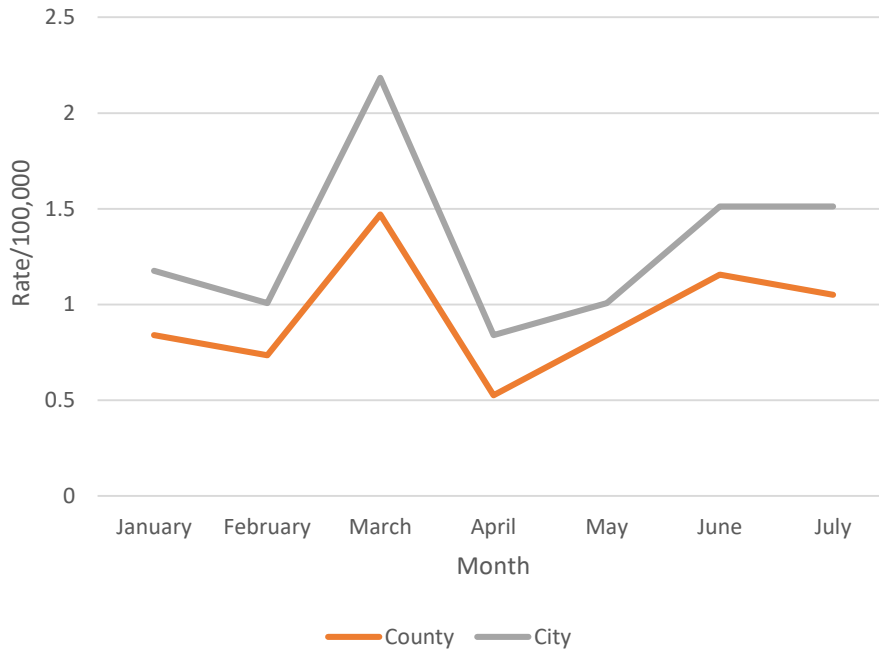


Figure 3: Monthly comparison of rate of new HIV infections in Milwaukee County and the City of Milwaukee, using data obtained from the Wisconsin Department of Health Services. Numbers are provisional and subject to change.

For statewide HIV data, visit:

<https://www.dhs.wisconsin.gov/hiv/data.htm>

Syphilis Surveillance

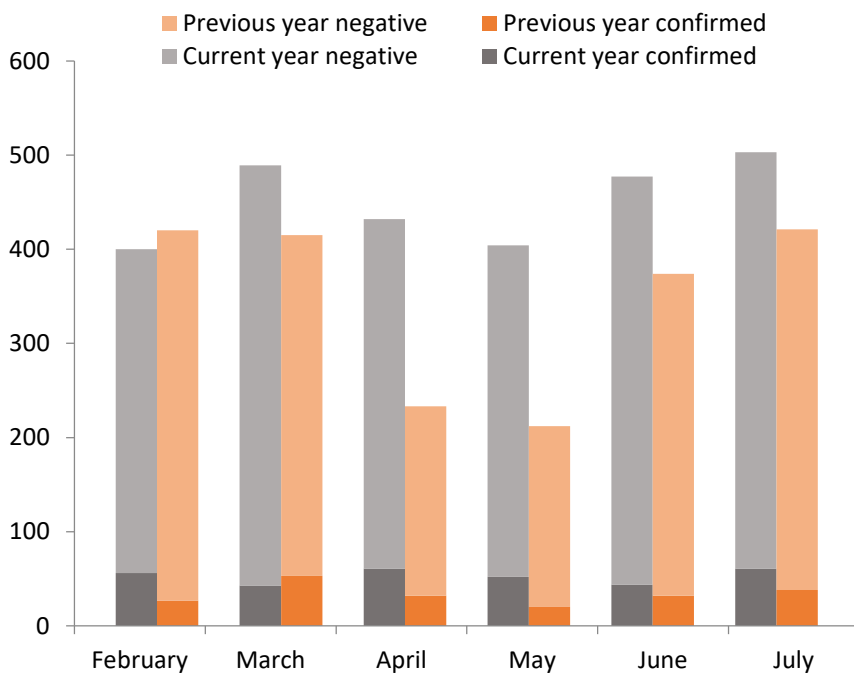


Figure 4: Monthly comparison of syphilis data with year over year comparisons.

Number of specimens screened at MHD, darker bars represent confirmed tests.

Gonorrhea Antimicrobial Susceptibility Testing

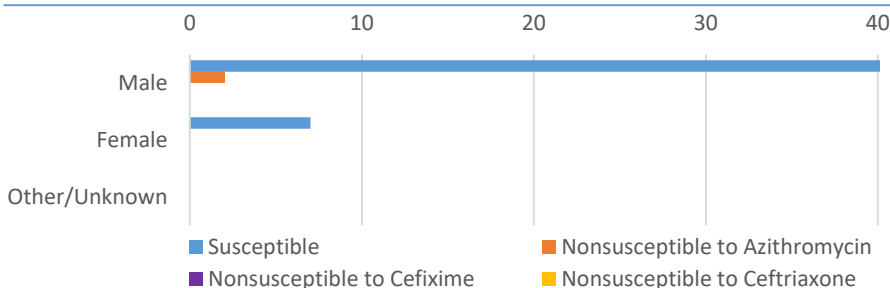


Figure 5: Antibiotic susceptibility profile of Gonorrhea isolates identified in males and females. In July 2021, 2 of 51 cultures tested were found to be nonsusceptible to Azithromycin according to CLSI guidelines. MHD tests for antibiotic resistance to Azithromycin, Ceftriaxone, Cefixime and Gentamicin.

Sexually Transmitted Infections by Source

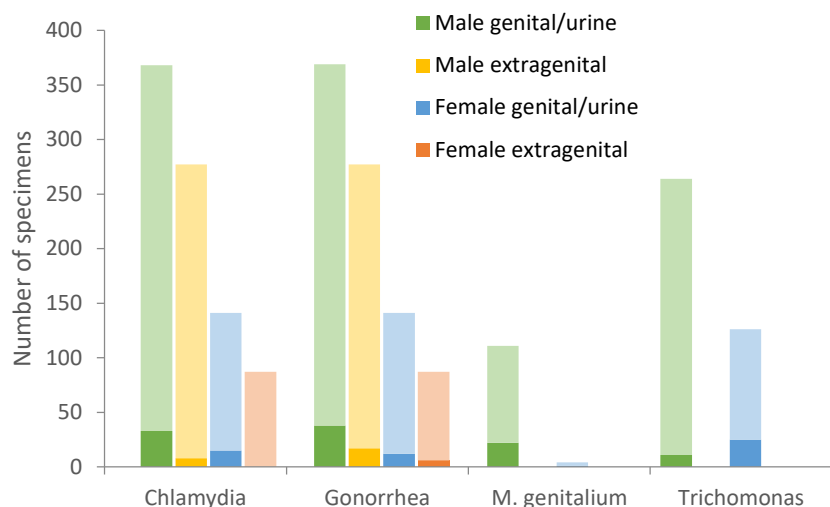


Figure 6: Distribution of STIs detected using NAAT. In July 2021 6.4% of male and 6.6% of female specimens screened were positive for Chlamydia. 8.5% of male and 7.9% of female specimens were positive for Gonorrhea. 19.8% of male and 1 of the 4 female specimens were positive for *M. genitalium*. 4.2% of male specimens and 19.8% of female specimens were positive for *Trichomonas*.

Note: Darker bars indicate positive specimens.

Viral Surveillance

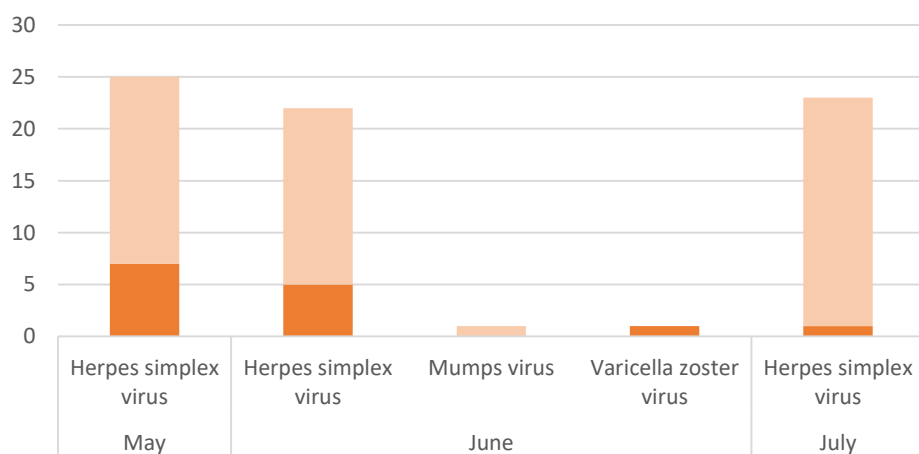


Figure 7: Specimens tested using molecular methods.

Note: Height of bar indicates number of specimens tested.

Darker bars indicate DNA/RNA detected by virus culture, real-time PCR and/or nucleotide sequencing analysis.

Legionella Testing

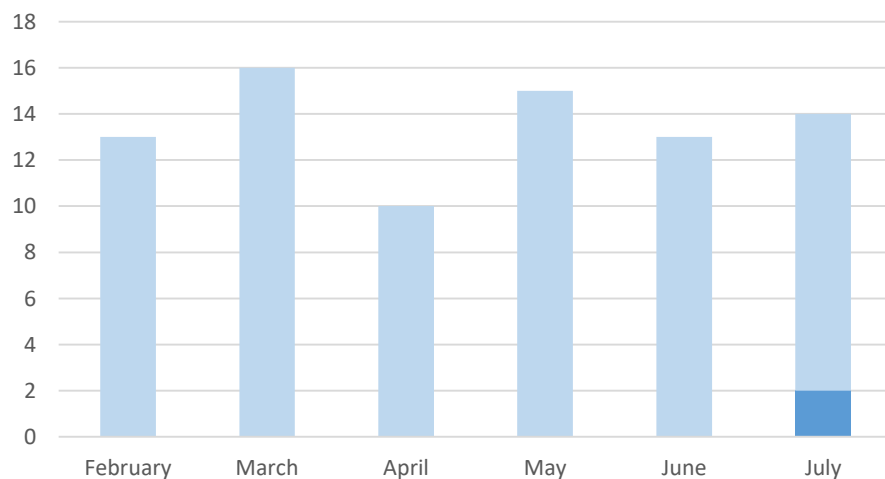


Figure 8: Clinical specimens tested using culture and molecular methods.

*MHDL is one of the **CDC ELITE** certified sites for environmental *Legionella* testing. See the Winter 2019 issue of the [APHL Bridges newsletter](#) for more information.

Note: Darker bars indicate confirmed Legionella pneumophila by culture and/or real-time PCR.